

REMARKS

2           The specification and drawings have been amended to make editorial changes therein. The change to the specification brings into the specification the language of the new claims. No new matter has been added. Support is found, for example, in Figures 2 and 4.

          The indication that claim 5 includes patentable subject matter (page 5 of the Official Action) is acknowledged with thanks, although it is noted that on page 4 of the Official Action claim 5 was rejected under §102 and that claims 2 and 4 were not rejected substantively. Clarification of this discrepancy is respectfully requested. Applicant cannot determine with certainty whether allowable subject matter is present, and if so, which subject matter is allowable. Nevertheless, as it appears that the Official Action has indicated that claim 2 includes allowable subject matter, the subject matter of claim 2 has been added to claim 1 to place claim 1 in condition for allowance.

          Claims 2-5 have been canceled and new claims 7-16 have been added, leaving claims 1 and 6-16 in the application. Consideration and allowance of the new and amended claims are respectfully requested.

          Claim 1 was rejected under §112, first paragraph and claims 2 and 4 were rejected under §112, second paragraph. While the new and amended claims avoid these rejections, it is to be

noted that original claim 1 was directed to a method, not to a structure with a single means. Reconsideration and withdrawal of the rejections are respectfully requested.

Claims 1, 3 and 5-6 were rejected as anticipated by MAENO 4,942,569. Reconsideration and withdrawal of the rejection are respectfully requested in view of the new claims.

MAENO describes a congestion control method in which packets are given two different priorities; one priority reflecting the timeliness of the data in the packet and the second priority reflecting the necessity of the data in the packet. For example, voice data are given a high priority for timeliness (e.g., voice data should be sent as close to one time as possible) and a low priority for necessity (e.g., voice data can be discarded), and terminal data are given a low priority for timeliness (e.g., terminal data should be later) and a high priority for necessity (e.g., terminal data cannot be discarded). As a result of this priority system, data packets are arranged in the queue with voice data at the beginning and terminal data at the end of the queue, but with the provision that voice data is discarded first if the queue is full and terminal data are not discarded (column 6, lines 1-34). New data are placed in the queue in the order determined by the respective priorities. As is apparent, MAENO arranges packet priority based on the nature of the packet as indicated by the priorities stored in the packet.

By contrast, the invention of amended claim 1 improves an output priority of a packet not undergoing convergence (that is, the packet is not being sent to a receiving unit that has transmitted a signal indicating that packets addressed thereto are to be released from the queue with a lower priority) by exchanging an order of the packet with another packet that is undergoing convergence (that is, the packet is being sent to a receiving unit that has transmitted a signal indicating that packets addressed thereto are to be released from the queue with a lower priority), in a predetermined range of packets. This is illustrated, by way of example, in Figures 1 and 4 that show the predetermine range of packets 20 and the swapping of the packets A0 (undergoing convergence because receiving unit 33 has sent out a convergence notice signal) and B0 (not undergoing convergence). MAENO do not describe this method and thus amended claim 1 is believed to be allowable.

The invention of new claim 7 is directed to a method of prioritizing packets in a queue with a single output, and includes the steps of indicating that packets addressed to one of the receiving units are to be released from the queue with a lower priority than other packets not addressed to the one receiving unit, and exchanging two of the packets for each other in the queue when a first of the two packets is addressed to the one receiving unit and a second of the two packets subsequent to the first packet is not addressed to the one receiving unit.

In other words, prioritization is based on the destination of the packet, not an internal priority. As shown in Figure 4, packets addressed to one of the destinations are to be released from the queue with a lower priority. In Figure 4, the "A" packets are addressed to the first information receiving unit 33, which has sent out a convergence notice signal. Receipt of the convergence notice signal in comparison and exchange means 4 causes the packet swap shown in Figure 4. Each time a packet is released from the queue, the packets rearrange themselves by exchanging two of the packets (e.g., A0 and B0) for each other in the queue when a first of the two packets (A0 addressed to unit 33) is addressed to the one receiving unit and a second of the two packets (B0 addressed to unit 34) subsequent to the first packet is not addressed to the one receiving unit. Accordingly, claim 7 avoids the rejection of record.

The other new claims include similar limitations expressed in alternative claim language and are allowable for the reasons noted above.

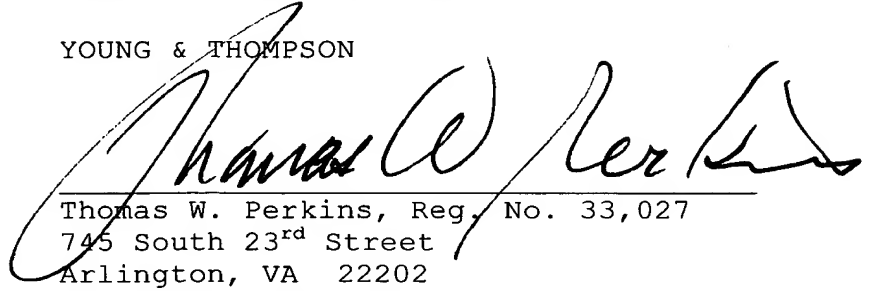
In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

Please charge the fee of \$86 for the extra independent claim added herewith, to Deposit Account No. 25-0120.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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A large, stylized handwritten signature in black ink, appearing to read "Thomas W. Perkins", is written over the typed name and address.

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